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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/466,627	12/17/1999	MING-LING LO	YO999-429	1398
44628	7590	10/06/2005	EXAMINER	
ANNE E. BARSCHALL 80 BENEDICT AVENUE TARRYTOWN, NY 10591-4142			NGUYEN, MAIKHANH	
			ART UNIT	PAPER NUMBER
			2176	

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/466,627

Applicant(s)

LO ET AL.

Examiner

Maikhanh Nguyen

Art Unit

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7-12, 14, 16-46, 48, 49, 51-61, 63, 64 and 66-96 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-12, 14, 16-46, 48, 49, 51-61, 63, 64 and 66-96 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. This action is responsive to communications: Amendment filed 07/19/2005 to the original application filed 12/17/1999.
2. Claims 1-3, 7-12, 14, 16-46, 48-49, 51-61, 63-64, and 66-96 are currently pending in this application. Claims 4-6, 13-15, 47, 50, 62, and 65 have been canceled. Claims 1, 46 and 61 are independent claims.

Claim Objections

3. Claims 3, 9, 12, 18, 21, 24, 27, 30, 33, 36, 39, 42, 45, 78, 89, and 92 are objected to because of the following informalities: they are not clear whether they are dependent or independent claims. Appropriate correction is required.

Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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5. Claims 1-3, 7-12, 14, 16-46, 48-49, 51-61, 63-64, and 66-96 are rejected under 35 U.S.C. 102(e) as being anticipated by **Chang et al.** (US 6,584,459, filed 06/1999, priority 10/1998).

As to claim 1:

Chang teaches establishing a mapping from lists and scalars corresponding to at least one data source into XML elements and attributes (*associating these data types with XML elements and attributes; col.19, lines 47-48 and see figs.1 and 3; see also, the mapping discussion beginning at col.14, line 34*).

As to claim 2:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 3:

Chang teaches at least one processor (*one or more processors; col.6, lines 21-22*) configured to use the at least one medium (*computer-readable medium; col.6, line 59*) to produce an XML document based on the mapping (*see the mapping discussion beginning at col.14, line 34*).

As to claim 7:

Chang teaches the data source is a relational database (*relational database; col.3, lines 35- 60 and fig.1*).

As to claim 8:

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Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 9:

It includes the same limitations as in claim 3 above, and is similarly rejected under the same rationale.

As claim 10:

Chang teaches expressing the mapping in constructs of a mapping language (*see the mapping discussion beginning at col.14, line 34*).

As to claim 11:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 12:

It includes the same limitations as in claim 3 above, and is similarly rejected under the same rationale.

As to claim 16:

Chang teaches at least one of a value specification and a binding specifications (*see figs. 1, 3 and the data linking discussion beginning at col.7, line 9*).

As to claim 17:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 18:

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It includes the same limitations as in claim 3 above, and is similarly rejected under the same rationale.

As to claim 19:

Chang teaches at least one parameter (*parameters; col.20, line 63*); the at least one of the constructs is adapted so that a value of the at least one of the parameters is determinable at a time of generation of at least one respective XML element associated with the at least one of the constructs (*col.22, lines 18-57 and col.23, lines 5-51*).

As to claim 20:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*) .

As to claim 21:

It includes the same limitations as in claim 3 above, and is similarly rejected under the same rationale. Additionally, Chang further teaches pass the value to the parameter (*col.22, lines 18-57*).

As to claim 22:

Chang teaches associating values and or formulas with a DTD (*see the DTD discussion beginning at col.9, line 3*).

As to claim 23:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 24:

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It includes the same limitations as in claim 3 above, and is similarly rejected under the same rationale. Additionally, Chang further teaches perform the associating operation (*see figs.1, 3 and the data linking discussion beginning at col.7, line 9*).

As to claim 25:

Chang teaches associating one or more lists of data objects or formulas producing data objects with each DTD construct having a repetition symbol at the end (*see the document type definition discussion beginning at col.5, line 50*).

As to claim 26:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 27:

Chang teaches at least one medium (*computer-readable medium; col.6, line 59*) according to claim 26; and at least one processor (*one or more processors; col.6, lines 21-22*) configured to use the at least one medium to produce an XML document; and perform the associating operation (*perform operations on the stored XML documents; col.8, lines 21-42*).

As to claim 28:

Chang teaches associating one or more lists of data objects or formulas producing data objects with each DTD construct which is not a #PCDATA, a choice list, or an attribute list, and does not end with a repetition symbol (*col.5, lines 17-48*).

As to claim 29:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 30:

It includes the same limitations as in claim 24 above, and is similarly rejected under the same rationale.

As to claim 31:

Chang teaches associating a value or formula producing a value with each PCDATA, choice list, or attribute definition (*col.24, lines 32-66*).

As to claim 32:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device(*one or more processors; col.6, lines 21-22*) .

As to claim 33:

It includes the same limitations as in claim 24 above, and is similarly rejected under the same rationale.

As to claim 34:

Chang teaches associating includes, not necessarily in the following order: first associating one or more lists of data objects, or formulas producing data objects with a DTD construct (*see the document type definition discussion beginning at col.5, line 50*); second associating at least one of the lists or formulas with at least one variable name; and using the variable name as a parameter in at least one other formula (*col.24, lines 38-66*).

As to claim 35:

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Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 36:

It includes the same limitations as in claim 24 above, and is similarly rejected under the same rationale.

As to claim 37:

Chang teaches associating at least one respective environment with a respective XML element to be generated (*an XML table is created; col.8, lines 31-32*).

As to claim 38:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 39:

It includes the same limitations as in claim 24, and is similarly rejected under the same rationale.

As to claim 40:

Chang teaches information from a parent XML element of the respective XML element; and information from a binding specification of a DTD construct associated with the respective XML element (*col.15, line 50-col.17, line 64*).

As to claim 41:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 42:

It includes the same limitations as in claim 24 above, and is similarly rejected under the same rationale.

As to claim 43:

Chang teaches the mapping includes at least one respective specification corresponding to at least one respective XML element the specification comprises at least one parameter for receiving a value upon generation of an XML document; and the method further comprises, upon generation of an XML document, sending the at least one parameter a value according to at least one variable/value pair (*attribute name/value pairs*) in the at least one respective environment (*col.15, line 25-col.16, line 24*).

As to claim 44:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 45:

It includes the same limitations as in claim 24 above, and is similarly rejected under the same rationale. Additionally, Chang further teaches sending operations (*col.25, lines 1-40*).

As to claim 46:

It is directed to a readable medium for implementing the method of claim 1 above, and is similarly rejected under the same rationale.

As claim 48

It includes the same limitations as in claim 7 above, and is similarly rejected under the same rationale.

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As claim 49:

It includes the same limitations as in claim 10 above, and is similarly rejected under the same rationale.

As to claim 51:

It includes the same limitations as in claim 16 above, and is similarly rejected under the same rationale.

As to claim 52:

It includes the same limitations as in claim 19 above, and is similarly rejected under the same rationale.

As to claim 53:

It includes the same limitations as in claim 22 above, and is similarly rejected under the same rationale.

As to claim 54:

It includes the same limitations as in claim 25 above, and is similarly rejected under the same rationale.

As to claim 55:

It includes the same limitations as in claim 28 above, and is similarly rejected under the same rationale.

As to claim 56:

It includes the same limitations as in claim 31 above, and is similarly rejected under the same rationale.

As to claim 57:

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It includes the same limitations as in claim 34 above, and is similarly rejected under the same rationale.

As to claim 58:

It includes the same limitations as in claim 37 above, and is similarly rejected under the same rationale.

As to claim 59:

It includes the same limitations as in claim 40 above, and is similarly rejected under the same rationale.

As to claim 60:

It includes the same limitations as in claim 43 above, and is similarly rejected under the same rationale.

As to claim 61:

It is directed to a processing device for performing the method of claim 1 above, and is similarly rejected under the same rationale. Additionally, Chang further teaches receiving data from at least one data source (*FileSystem, DB2 in fig. 3*) and at least one processor (*one or more processors; col. 6, lines 21-22*).

As to claim 62:

It includes the same limitations as in claim 4 above, and is similarly rejected under the same rationale.

As to claim 63:

It includes the same limitations as in claim 7 above, and is similarly rejected under the same rationale.

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As to claim 64:

It includes the same limitations as in claim 10 above, and is similarly rejected under the same rationale.

As to claim 65:

It includes the same limitations as in claim 13 above, and is similarly rejected under the same rationale.

As to claim 66:

It includes the same limitations as in claim 16 above, and is similarly rejected under the same rationale.

As to claim 67:

It includes the same limitations as in claim 19 above, and is similarly rejected under the same rationale.

As to claim 68:

It includes the same limitations as in claim 22 above, and is similarly rejected under the same rationale.

As to claim 69:

It includes the same limitations as in claim 25 above, and is similarly rejected under the same rationale.

As to claim 70:

It includes the same limitations as in claim 28 above, and is similarly rejected under the same rationale.

As to claim 71:

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It includes the same limitations as in claim 31 above, and is similarly rejected under the same rationale.

As to claim 72:

It includes the same limitations as in claim 34 above, and is similarly rejected under the same rationale.

As to claims 73-75:

They include the same limitations as in claims 58-60 above, and are similarly rejected under the same rationale.

As to claims 76 and 79-80:

Chang teaches multiple heterogeneous data sources (*see FileSystem 500 and DB2 300 in fig.3*) and method further comprises using a pre-established DTD corresponding to the multiple heterogeneous data sources; and based on the DTD and the multiple heterogeneous data sources, adding annotations to the DTD to create an annotated DTD (*col.12, lines 34-60*), such that an SML document generated from the DTD is guaranteed to conform to the DTD (*XML documents conform to a single DTD; col.15, lines 50-67*).

As to claim 77:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*) .

As to claim 78:

Chang teaches at least one medium (*computer-readable medium; col.6, line 59*) and a processor (*one or more processors; col.6, lines 21-22*).

As to claims 81-83:

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Chang teaches the mapping return at least one list of scalar values, and at least one SQL call result (*col.23, line 5-col.24, line 28 and col.25, lines 4-40*).

As to claims 84-86:

Chang teaches the mapping is responsive to a user mapping specification (*col.16, lines 1-22*).

As to claim 87:

Chang teaches at least two data sources, and the data sources are of different types (*see FileSystem 500 and DB2 300 in fig.3*).

As to claim 88:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device(*one or more processors; col.6, lines 21-22*).

As to claim 89:

Chang teaches the at least one medium (*computer-readable medium; col.6, line 59*); and at least one processor (*one or more processors; col.6, lines 21-22*) configured to use the at least one medium to produce an XML document based on the mapping.

As to claim 90:

94, and 96:

Refer to discussion of claim 76 above.

As to claim 91:

Chang teaches at least one medium readable (*computer-readable medium; col.6, line 59*) and a data processing device (*one or more processors; col.6, lines 21-22*).

As to claim 92:

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Chang teaches the at least one medium (*computer-readable medium; col.6, line 59*), and at least one processor (*one or more processors; col.6, lines 21-22*) configured to use the at least one medium to produce an XML document based on the mapping; and perform the inserting operation (*col.21, line 3-12*).

As to claims 93 and 95:

They include the same limitations as in claim 87 above, and are similarly rejected under the same rationale.

As to claims 94 and 96:

Refer to discussion of claim 76 above.

Response to Arguments

6. Applicants' arguments filed 07/19/2005 have been fully considered but are moot in view of the new ground(s) rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Meltzer et al.	U.S. Patent No. 6,125,391	issued: Sep.26, 2000
Meltzer et al.	U.S. Patent No. 6,226,675	issued: May 1, 2001
Chen et al.	U.S. Patent No. 6,507,856	issued: Jan. 14, 2003
Meltzer et al.	U.S. Patent No. 6,542,912	issued: Apr. 1, 2003
Bowker et al.	U.S. Patent No. 6,601,071	issued: Jul. 29, 2003

Florescu et al., "Storing and Query XML Data using an RDMBS", IEEE, Copyright 1999, pp.27-34.

Chaitanya Baru, "XViews: XML views of relational schemas", Database and Expert Systems Applications, IEEE, 09/1999, pp.1-6.

Papakonstantinou et al., "Enhancing Semistructured Data Mediators with Document Type Definitions", Data Engineering, IEEE, 03/1999, pp.1-10.

Seligman et al., "XML Query Language Requirements of Large, Heterogeneous Organizations", QL'98-Papers, www.w3.org, pp.1-4.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maikhanh Nguyen whose telephone number is (571) 272-4093. The examiner can normally be reached on Monday - Friday from 9:00am – 5:30 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on (571) 272-4136.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MN

William L. Bashore
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PRIMARY EXAMINER
10/1/2005